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REMARKS

Claims 69-94 are presently pending in this application.

The Advisory Action stated that the originally filed drawings (December 5, 1997) do not contain an element 75 nor a Figure 5b, and concluded that the drawing change therefore was not approved as containing new matter. In response, it is submitted that element 75 existed in the originally-filed informal drawings of the parent patent application. Page 1 of the Application Transmittal of the current application incorporates by reference the entire contents of the parent application, as does page 2 of the December 13, 2005 Amendment that was filed in the current application.

Regarding the objection to the drawings, Applicants submit that the symmetrical and identically-appearing nozzles 71 and 72 would appear to one of ordinary skill in the art to be identical and simultaneously operated. According to Section 2125 of the Manual of Patent Examining Procedure (MPEP), which speaks on an analogous issue of the interpretation of prior-art drawings, "the drawings must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art." The above language from Applicants' specification uses the phrase "may also be used" (emphasis added), and does not use exclusionary language such as "may alternatively be used" or "may instead be used." Applicants thus submit that the queried language is shown in the drawings and supported in the text. This same section of the MPEP cites to a case which states that, while "patent drawings do not define the precise proportions of the elements ... the description of the article pictured can be relied on, in combination with the drawings, for what they would reasonably teach one of ordinary skill in the art." Applicants respectfully submit that in this and the other instances discussed herein the drawings are not relied upon to show fine and exacting to-scale details such as particular and precise sizes and exact dimensions, but rather to disclose exemplary embodiments of the invention such as are consistent with, for example, recitations in the current claims. Using the above

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standard for evaluating what the drawings disclose, which is what they reasonably disclose and suggest to one of ordinary skill in the art, the queried elements are indeed disclosed.

Applicants again wish to emphasize, even to the extent the Examiner now would agree, that the Office Action, by its own words, appears to acknowledge that the current application, which is a divisional application of U.S. Patent No. 5,741,247 to Rizoiu et al. (the '256 patent), teaches the outputting of atomized fluid particles from a plurality of atomizers. In particular, on pages 6 and 7 the Office Action states no fewer than four times that the '247 patent, having a specification the same as that of the current specification, teaches, using multiple atomizers. Consequently, the queried language would appear to be disclosed by the drawings according to the Office Action's own analysis.

The Office Action stated that "an angle of incidence from a first one of the plurality of atomizers" must be shown or the feature(s) canceled from the claim(s). In response, Applicants refer to Figure 5a and submit that a person of ordinary skill in the art would understand a fluid particle's angle of incidence to be measured with respect to a reference item of the structure, such as the fiber tip, so that the fluid particle would exit the atomizer with an angle of incidence relative to that reference structure. Applicants thus submit that the queried language is shown in the drawings. In any event, the Office Action, by its own words, appears to acknowledge that the current application teaches "an angle of incidence from a first one of the plurality of atomizers." In particular, on pages 6 and 7 the Office Action states no fewer than four times that the '247 patent teaches, using multiple atomizers that are directed non-parallel to the laser axis. According to the Office Action's own analysis, the queried language would appear to be taught by the drawings.

The Office Action stated that elements of the phrase "an angle of incidence of atomized fluid particles from a first one of the plurality of atomizers is different from an angle of incidence of atomized fluid particles from a second one of the plurality of

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atomizers" must be shown or the feature(s) canceled from the claim(s). The Office Action also stated that language to the effect that "the fiber guide tube is disposed between the first atomizer and the second atomizer" must be shown or the feature(s) canceled from the claim(s), and further stated that "the output axes ... point[ing] from the respective atomizers to a general vicinity of the interaction zone" must be shown or the feature(s) canceled from the claim(s). The Office Action added that "the output axes intersect[ing] a longitudinal axis of the fiber guide within the interaction zone" must be shown or the feature(s) canceled from the claim(s). In response, Applicants refer again to Figure 5a and submit that a person of ordinary skill in the art would understand a fluid particle's angle of incidence to be measured with respect to an item of the structure other than the atomizer, such as the fiber tip, and would further understand that the angle of incidence of particles from nozzle 71 would be different than the angle of incidence of particles from nozzle 72. Applicants further submit that a person of ordinary skill in the art would understand the fiber 23 to be disposed between the nozzle 71 and the nozzle 72. One of ordinary skill in the art would also understand an atomizer's output axis to be oriented in a direction parallel with a direction at which the atomizer outputs particles and that, consequently, the output axes of the two nozzles 71 and 72 point to a general vicinity of the interaction zone 59. One of ordinary skill in the art, understanding that an atomizer's output axis is oriented in a direction parallel with a direction at which the atomizer outputs particles would, consequently, recognize that the output axes of the two nozzles 71 and 72 point and thus intersect the longitudinal axis (see the dashed line) of the fiber guide 23 within the interaction zone 59. Thus, the queried language is shown in the drawings. In any event, the Office Action on pages 6 and 7 states that the parent '247 patent teaches using multiple atomizers that are directed non-parallel to the laser axis and whose axes converge near or at the interaction zone, so that the queried language would appear to be taught by the drawings according to the Office Action's analysis.

The Office Action stated that the feature of "atomized fluid particles from a first one of the plurality of atomizers combin[ing] with atomized fluid particles from a second

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one of the plurality of atomizers" must be shown or the feature(s) canceled from the claim(s), and stated that the structure of "an output axis of a first one of the plurality of atomizers [being] not parallel to an output axis of a second one of the plurality of atomizers" must be shown or the feature(s) canceled from the claim(s). In response, Applicants refer to Figure 5a and submit that a person of ordinary skill in the art would understand the atomizers to output particles in directions at which the atomizers are pointed, so that, based upon what is shown in the figure, at least some of the particles output from nozzles 71 and 72 would be combined. A person of ordinary skill in the art would also understand that, as a result of atomizers' output axes being oriented in directions parallel with directions at which the atomizers output particles, the output axes of nozzles 71 and 72 would not be parallel. Applicants thus submit that the queried language is shown in the drawings. In any event, the queried language would appear to be taught by the drawings according to the Office Action's statement on pages 6 and 7 that multiple atomizers of the '247 patent can be directed non-parallel to the laser axis with axes that converge near or at the interaction zone.

The Office Action stated that the structure of "atomized fluid particles simultaneously output from the plurality of atomizers into the interaction zone," "a dial for controlling a repetition rate of the electromagnetic energy" and "a dial for controlling an average power of the electromagnetic energy" must be shown or the feature(s) canceled from the claim(s). In response, Applicants refer again to the paragraph bridging pages 12 and 13 of Applicants' specification which states that a "second nozzle 72, shown in phantom lines, may also be used." As a consequence of the nozzles 71 and 72 being depicted with essentially identical images, and with essentially identical and symmetrical positions and orientations on the laser housing for the same purposes, a person of ordinary skill in the art would understand the nozzles 71 and 72 to have identical structures and to have identical and simultaneous functions. Since the specification describes nozzle 71 as emitting fluid while the energy source is emitting electromagnetic energy, and since nozzle 72 would be considered by one of ordinary skill to be similarly disposed, oriented, and

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operated, nozzle 72 would be considered, too, to emit fluid while the energy source is emitting electromagnetic radiation, so that atomized fluid particles are simultaneously output from the plurality of atomizers into the interaction zone. Applicants refer to Figure 5b and language from the full paragraph on page 18 of Applicants' specification which states that "[t]he user input device for controlling cutting efficiency may comprise a simple pressure and flow rate gauge 75 (FIG. 5) or may comprise a control panel as shown in FIG. 6, for example." Moreover, the second full paragraph on page 15 of Applicants' specification states that the "control panel 77 ... may comprise ... a repetition rate 82" which is depicted, as would be understood by one of ordinary skill in the art, as a dial. Furthermore, the second full paragraph on page 15 of Applicants' specification states that the "control panel 77 ... may comprise ... an average power control 81" which is depicted, as would be understood by one of ordinary skill in the art, as a dial. Applicants thus submit that the queried language is shown in the drawings.

The Office Action stated that "the output axes intersect[ing] a longitudinal axis of the fiber guide near or in the interaction zone" and "the output axes intersect[ing] in a general vicinity of the [laser] path near or in the interaction zone" must be shown or the feature(s) canceled from the claim(s). In response, Applicants refer to Figure 5a and submit that a person of ordinary skill in the art would understand an atomizer's output axis to be oriented in a direction parallel with a direction at which the atomizer outputs particles and that, consequently, the output axes of the two nozzles 71 and 72 point to and thus intersect the longitudinal axis (see the dashed line) of the fiber guide 23 within the interaction zone 59. A person of ordinary skill in the art would also understand an atomizer's output axis to be oriented in a direction parallel with a direction at which the atomizer outputs particles, so that the output axes of the two nozzles 71 and 72 would be considered to intersect the longitudinal axis of the fiber guide 23 within the interaction zone 59. Since the specification describes the axis of nozzle 71 intersecting the longitudinal axis of the fiber guide, and since nozzle 72 would be considered by one of ordinary skill to be similarly disposed and oriented, the output axes of both nozzles are

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disclosed as intersecting near or in the interaction zone. Applicants thus submit that the queried language is shown in the drawings. In any event, the queried language would appear to be taught by the drawings according to the Office Action's statement on pages 6 and 7 that multiple atomizers of the '247 patent can be directed with axes that converge near or at the interaction zone.

Regarding the Office Action's objection to the Amendment filed February 7, 2005 as introducing new matter into the disclosure under 35 U.S.C. 132(a), Applicants submit that the Amendment did not introduce new matter for reasons including those set forth above. It is again noted that the Office Action appeared to acknowledge that the current application teaches using multiple atomizers that are directed non-parallel to the laser axis and whose axes converge near or at the interaction zone. Consequently, the alleged new matter of the Amendment filed February 7, 2005 would appear, according even to the Office Action, to be taught by the original drawings of the current application.

Regarding the rejection of claims 68-94 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement, Applicants respectfully traverse this rejection for reasons including those set forth above. The Office Action states that the original disclosure is silent on "outputting [of] atomized fluid particles from a plurality of atomizers," "an angle of incidence from a first one of the plurality of atomizers," "an angle of incidence of atomized fluid particles from a first one of the plurality of atomizers is different from an angle of incidence of atomized fluid particles from a second one of the plurality of atomizers," "the fiber guide tube is disposed between the first atomizer and the second atomizer," "the output axes ... point[ing] from the respective atomizers to a general vicinity of the interaction zone," "the output axes intersect[ing] a longitudinal axis of the fiber guide within the interaction zone," "atomized fluid particles from a first one of the plurality of atomizers combin[ing] with atomized fluid particles from a second one of the plurality of atomizers," "an output axis of a first one of the plurality of atomizers [being] not parallel to an output axis of a second one of the plurality of atomizers,"

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"atomized fluid particles [being] simultaneously output from the plurality of atomizers into the interaction zone," "a dial for controlling a repetition rate of the electromagnetic energy," "a dial for controlling an average power of the electromagnetic energy" "wherein the plurality of atomizers is two atomizers," "the output axes intersect[ing] a longitudinal axis of the fiber guide near or in the interaction zone" and "the output axes intersect[ing] in a general vicinity of the [laser] path near or in the interaction zone." However, since the original disclosure is the same as the disclosure of the '247 patent, and since the Office Action stated that the '247 patent teaches using multiple atomizers that are directed non-parallel to the laser axis and whose axes converge near or at the interaction zone, this rejection would appear to be without merit. Accordingly, Applicants respectfully request that this rejection under 35 U.S.C. 112, first paragraph, be reconsidered and withdrawn.

Regarding the rejections of claims 59-61, 67 and 68 in various combinations under 35 U.S.C. 102(a) and 102(b), it is reiterated that Applicants have cancelled these rejected claims.

Regarding the rejections of claims 53-94 in various combinations under 35 U.S.C. 103(a) as being unpatentable in view of various references, Applicants again submit that U.S. Patent No. 6,544,256 to Rizoju et al. (the '256 patent) is not prior art. Indeed, the present application is a divisional application of the '256 patent.

In response to the Office Action's statement that "the first paragraph of the originally filed disclosure ... contains no specific reference to the earlier filed application, Applicants respectfully submit that:

- (1) page 1 of the Application Transmittal of the current application claims priority to the parent application; and
- (2) page 2 of the December 13, 2005 Amendment that was filed in the current application claims priority to the parent application.

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Accordingly, the priority filing date of the current application clearly is August 31, 1995.

Also, in response to the Office Action's statement that "the Declaration filed with the contemporaneously with the instant application ... clearly states, under the section claiming the benefit of the United States applications "NONE," it is submitted that continuation and divisional applications are, as the Examiner may know, filed with a copy of the Declaration from the parent application. The Examiner's attention is directed to page 2 of the Application Transmittal of the current application which states that the submitted Declaration a copy of the Declaration of the parent application. Furthermore, the Examiner's attention is directed to the Express Mail certification page of the current application which states that the submitted Declaration is a copy of the Declaration of the parent application. Since the parent '256 application does not claim priority to an earlier application, the Examiner should expect the Declaration filed contemporaneously with the instant application to state, under the section claiming the benefit of the United States applications "NONE." Any other verbiage would appear to be nonsensical.

Applicants thus reiterate that the priority filing date of the current application clearly is August 31, 1995, and that the parent '256 application is not prior art to the current application. Since none of the remaining prior art references of record appears to provide the teaching of the '256 patent, namely, of multiple atomizers having non-parallel orientations relative to the laser axis with axes that converge near or at the interaction zone, Applicants respectfully request that the rejections under 35 U.S.C. 103(a) be reconsidered and withdrawn.

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In view of the above, Applicants respectfully submit that the application is now in condition for allowance, and an early indication of the same is requested. The Examiner is invited to contact the undersigned with any questions.

Respectfully submitted,



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